

ABSTRACT OF THE DISCLOSURE

This invention provides a cleaning method of silicon wafer for obtaining a silicon wafer in which micro roughness thereof under spatial frequency of $20/\mu\text{m}$ is 0.3 to 1.5 nm^3 in terms of power spectrum density, by passing a process of oxidizing the silicon wafer with ozonized water and a process of cleaning said oxidized silicon wafer with hydrofluoric acid. Consequently, it is possible to remove surface adhering pollutant such as particles and metallic foreign matter with the surface structure of silicon wafer flattened up to atomic level by annealing maintained.